

## CLAIMS

What is claimed is:

1. A method for efficiently merging subnets comprising the steps of:

linking a first subnet having a first subnet manager and a first database with a second subnet having a second subnet manager and a second database to create a merged subnet; and

dynamically selecting one of said first subnet manager and said second subnet manger as a master subnet manager, which controls the merged subnet.

2. The method of Claim 1, wherein said first and second database comprise configuration entries including a partition key (P\_Key) and a global unique identifier (GUID), which are time-stamped with a time said configuration entries are modified by respective ones of said first and second subnet managers.

3. The method of Claim 2, wherein said first subnet manager is selected as said master subnet manager, said method further comprising the step of:

absorbing said subnet configuration entries from said database of the other subnet manager to said database of said master subnet manager to create a merged database.

1 4. The method of Claim 3, wherein said absorbing step  
2 further comprises the steps of:

3  
4 determining that a first GUID entry of said second  
5 database is the same as a second GUID entry of said first  
6 database; and

7  
8 in response to said determining step, selecting a  
9 latest time-stamped GUID entry from among said first GUID  
10 entry and said second GUID entry as a representative GUID  
11 entry for said merged database.

1 5. The method of Claim 4, further comprising the step of  
2 discarding a GUID entry not selected as said representative  
3 GUID entry.

4 6. The method of Claim 4, wherein said absorbing step  
5 further comprises the steps of:

6  
7 determining that a first P\_Key entry of a GUID of said  
8 second database of said other subnet manager is the same as  
9 a second P\_key entry of a different GUID of said first  
10 database;

11 in response to said determining step, changing all  
occurrences of said P\_Key in said second database to a new  
P\_Key value.

1 7. The method of Claim 6, wherein said changing step  
2 further comprises the step of selecting only a P-Key value  
3 that is not one of said P\_Key values within said first  
4 database and said second database.

1 8. The method of Claim 3, further comprising the step of  
2 configuring said merged subnet utilizing said master subnet  
3 manager.

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1 9. A computer program product comprising:

2  
3 a computer readable medium; and

4  
5 program instructions on said computer readable medium  
6 for:

7  
8 linking a first subnet having a first subnet manager  
9 and a first database with a second subnet having a second  
10 subnet manager and a second database to create a merged  
11 subnet; and

12  
13 dynamically selecting one of said first subnet manager  
14 and said second subnet manager as a master subnet manager,  
15 which controls the merged subnet.

16  
17 10. The computer program product of Claim 9, wherein said  
18 first and second database comprise configuration entries  
19 including a partition key (P\_Key) and a global unique  
20 identifier (GUID), which are time-stamped with a time said  
21 configuration entries are modified by respective ones of  
22 said first and second subnet managers.

23  
24 11. The computer program product of Claim 10, wherein said  
25 first subnet manager is selected as said master subnet  
26 manager, said program product further comprising program  
27 instructions for:

28  
29 absorbing said subnet configuration entries from said  
30 database of the other subnet manager to said database of  
31 said master subnet manager to create a merged database.

1 12. The computer program product of Claim 11, wherein said  
2 absorbing instructions further comprises program  
3 instructions for:

4  
5 determining that a first GUID entry of said second  
6 database is the same as a second GUID entry of said first  
7 database; and

8  
9 in response to said determining step, selecting a  
10 latest time-stamped GUID entry from among said first GUID  
11 entry and said second GUID entry as a representative GUID  
12 entry for said merged database and discarding an older  
13 time-stamped entry.

1 13. The computer program product of Claim 12, further  
2 comprising program instructions for discarding a GUID entry  
3 not selected as said representative GUID entry.

1 14. The computer program product of Claim 12, wherein said  
2 absorbing instructions further comprises program  
3 instructions for:

4  
5 determining that a first P\_Key entry of a GUID of said  
6 second database of said other subnet manager is the same as  
7 a second P\_key entry of a different GUID of said first  
8 database;

9  
10 in response to said determining step, changing all  
11 occurrences of said P\_Key in said second database to a new  
12 P\_Key value.

15. The computer program product of Claim 14, wherein said changing instructions further comprises program instructions for selecting only a P-Key value that is not one of said P\_Key values within said first database and said second database.

16. The computer program product of Claim 11, further comprising program instructions for configuring said merged subnet utilizing said master subnet manager.

1 17. A system comprising:

2  
3 a first subnet with a first subnet manager and a first  
4 database of subnet entries;

5  
6 a second subnet with a second subnet manager and a  
7 second database of subnet entries, wherein said second  
8 subnet is coupled to said first subnet;

9  
10 logic components for selecting a master subnet manager  
11 from among said first subnet manager and said second subnet  
12 manager; and

13  
14 software logic associated with said master subnet  
15 manager for merging said first database and said second  
16 database.

17 18. The system of Claim 17, wherein:

18  
19 said first subnet manager is said master subnet  
20 manager; and

21  
22 said first subnet manager absorbs configuration  
23 entries from said second database into said first database  
24 to create a merged database.

25  
26 19. The system of claim 18, wherein said first subnet  
27 manager controls and manages said system utilizing said  
28 merged database.

29  
30 20. The system of Claim 17, wherein said first subnet  
31 manager determines when a first GUID entry in said first

database is the same as a second GUID entry in said second database and dynamically selects a latest time-stamped entry from among both of said first and second GUID entries for inclusion in said merged database and discarding an older time-stamped entry.

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